

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method for the manufacture of a matrix having at least one surface section or layer displaying a negative microstructure, the matrix being suitable for inclusion as a mould insert in a mould cavity or in a cavity in a unit for producing plastic components, in order to assign at least one part or surface of said plastic components an opposing or positive microstructure in a corresponding surface section, whereby said layer is exposing the conditions of ~~[[high]]~~ hardness and ~~[[high]]~~ wear resistance, the method comprising forming said matrix by providing an original having a surface section displaying a positive microstructure; applying onto said original successive layers of different materials or mixtures of materials for building up and producing said matrix, and thereafter either removing said matrix from said original or removing the material building up said original to manufacture a microstructure related surface section of the matrix, that has a sharp negative microstructure;

- a. wherein said surface section related to the original is caused to display ~~[[a]]~~ said ~~[[sharp]]~~ positive microstructure,
- b. wherein said first matrix related layer is a material having an ~~[[exceptional]]~~ ability ~~[[of the produced plastic components]]~~ to release ~~[[from]]~~ the matrix surface from the produced plastic components after moulding, curing or ~~[[polymerisation]]~~ polymerization,
- c. wherein said selected material, according to “b”, also ~~exposes exceptionally good properties as regards to retaining~~ retains the pattern on the negative microstructured surface section related to said first layer,
- d. ~~— said first layer is chosen from a material exposing low friction properties towards produced plastic components,~~
- ~~[[e]]~~d. wherein said material in said first layer is a crystalline diamond, a DLC, a nitride, or a carbide,
- ~~[[f]]~~e. wherein said first layer is applied onto said original in a thickness of 0,1 - 100 μ m; and

[[g]]f. wherein a second material layer, having [[good]] an adhesive capability to the first material layer, is applied onto said first material layer.

2. (previously presented) A method as claimed in claim 1, wherein said second material layer consists of titanium and/or chromium.

3. (previously presented) A method as claimed in claim 1, wherein said second material layer is applied in a thickness of 0.05 - 2.0 μm .

4. (currently amended) A method as claimed in claim 1, wherein a third material layer, with [[good]] adhesive capability to said second material layer, is applied onto the second layer.

5. (previously presented) A method as claimed in claim 4, wherein said third material layer consists of nickel.

6. (previously presented) A method as claimed in claim 4 wherein said third material layer is applied in a thickness of 0.05 - 2.0 μm .

7. (currently amended) A method as claimed in claim 4, wherein said second material layer and said third material layer are combined to an intermediately oriented layer, having a high DLC, titanium or chromium concentration at a boundary surface against said first material layer and a [[high]] nickel concentration at a boundary surface against a bulk material, in the form of a fourth layer and said fourth layer serving as mechanical support.

8. (previously presented) A method as claimed in claim 1, wherein said first material layer has a thickness of 1-15 μm .

9. (previously presented) A method as claimed in claim 1, wherein said original comprises a treated silicon disc, with a chosen microstructure, the method comprising removing said silicon disc by a basic etching process.

10. (previously presented) A method as claimed in claim 9, wherein said basic etching is with KOH or NaOH.

11. (previously presented) A method as claimed in claim 1, wherein said second material layer is a mixture of DLC or the equivalent and nickel.

12. (previously presented) A method as claimed in claim 1, wherein said second material layer has a thickness of 0.05 - 1.0 μm .

13. (previously presented) A method as claimed in claim 4, wherein said third material layer is of nickel only.

14. (previously presented) A method as claimed in claim 4, wherein said third material layer has a thickness of 0.05 - 1.0 μm .

15. (previously presented) A method as claimed in claim 4, wherein a fourth material layer is applied as a plating of a nickel material.

16. (previously presented) A method as claimed in claim 15, wherein said fourth material layer is chosen with a thickness appropriate for an application.

17. (previously presented) A method as claimed in claim 1, further comprising applying said DLC layer by a sputtering process.

18. (previously presented) A method as claimed in claim 1, further comprising applying said second material layer by a sputtering process.

19. (previously presented) A method as claimed in claim 4, further comprising applying said third material layer by a sputtering process.

20. (previously presented) A method as claimed in claim 4, further comprising applying said second and third material layers by a sputtering process.

21. (previously presented) A matrix manufactured according to the method of claim 1.

22. (previously presented) A matrix manufactured according to the method of claim 4.

23. (previously presented) A matrix manufactured according to the method of claim 7.

24. (previously presented) A matrix manufactured according to the method of claim 13.